

AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior versions and listings of claims in this application.

Listing of Claims:

1 – 32 (Cancelled).

33. (New) An implant comprising:

titanium and having one or more surfaces which can be applied in or on tissue areas and/or bone growth areas, one or more of the said surfaces being arranged with a depot for a bone-growth-initiating substance or bone-growth-stimulating substance of the superfamily TGF- β ,

wherein the depot is formed by a pore arrangement in a relatively thick oxide layer on the titanium, and

wherein the oxide layer has a thickness in the range of 1-20 μm .

34. (New) The implant according to claim 33, wherein the oxide layer has a surface roughness in a range of 0.4 - 5 μm .

35. (New) The implant according to claim 33, wherein the oxide layer is highly porous, with 1×10^7 - 1×10^{10} pores/ cm^2 .

36. (New) The implant according to claim 33, wherein each surface essentially has pores with diameter sizes in the range of 0.1 - 10 μm , and/or in that the total pore volume is within a range of 5×10^{-2} and 10^{-5} cm^3 .

37. (New) The implant according to claim 33, wherein the oxide layer has a thickness in the range of 2 - 20 μm .

38. (New) The implant according to claim 33, wherein the oxide layer is highly porous, with pore diameters in the range of 0.01 - 10 μm .
39. (New) The implant according to claim 33, wherein the oxide layer has a surface roughness of about 1 - 5 μm .
40. (New) The implant according to claim 33, wherein the implant is a dental implant.
41. (New) The implant according to claim 35, wherein the oxide layer has a surface roughness in a range of 0.4 - 5 μm .
42. (New) The implant according to claim 35, wherein each surface essentially has pores with diameter sizes in the range of 0.1 - 10 μm , and/or in that the total pore volume is within a range of 5×10^{-2} and 10^{-5} cm^3 .
43. (New) The implant according to claim 35, wherein the oxide layer has a thickness in the range of 2 - 20 μm .
44. (New) The implant according to claim 35, wherein the oxide layer is highly porous, with pore diameters in the range of 0.01 - 10 μm .
45. (New) The implant according to claim 35, wherein the oxide layer has a surface roughness of about 1 - 5 μm .
46. (New) The implant according to claim 35, wherein the implant is a dental implant.